

Fig: 1

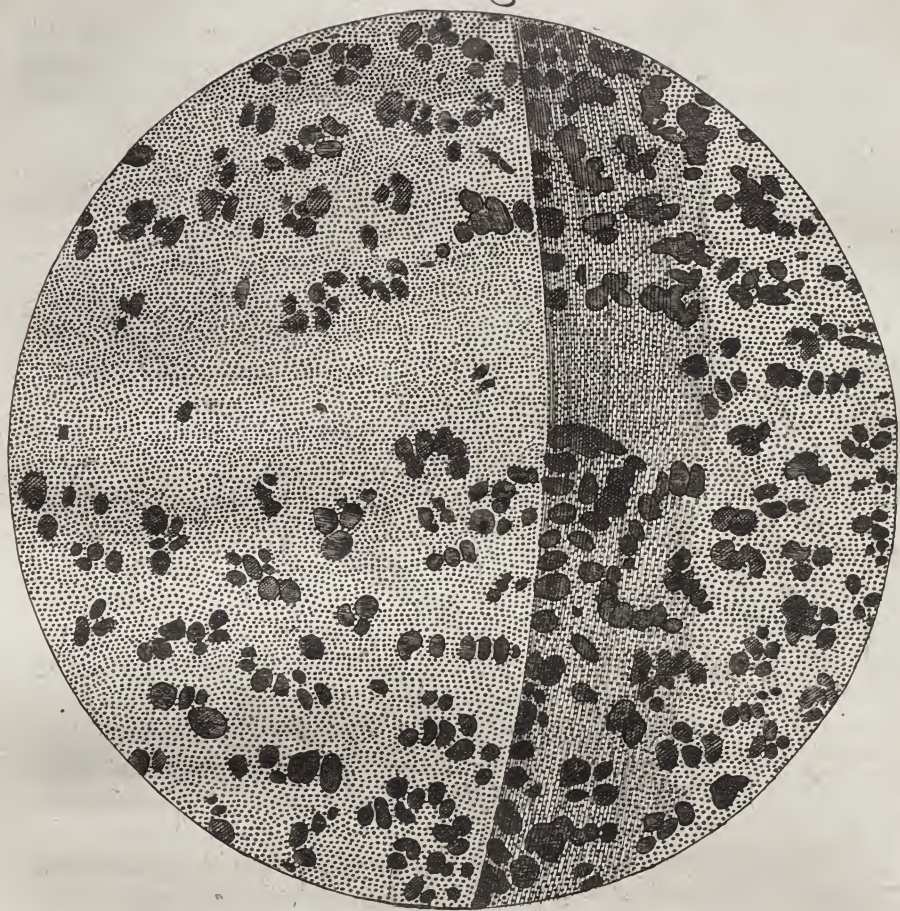
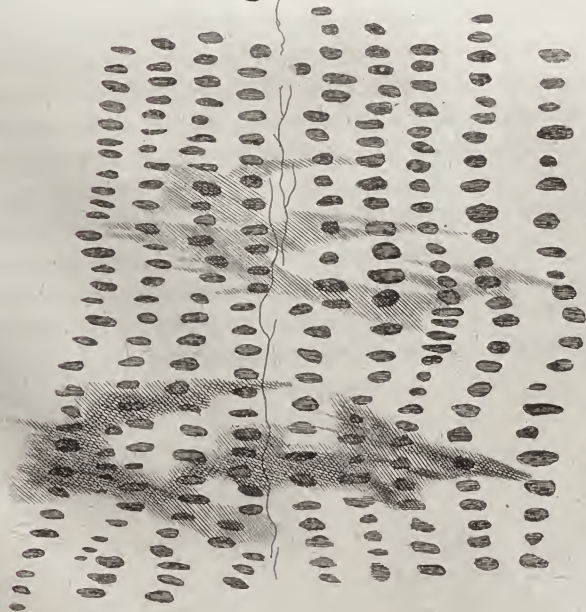


Fig: 2:



Scheme

MICROGRAPHIA

Observ. XVII. Of Petrify'd wood, and other

OF this sort of substance, I observ'd several kinds, both for their outward shape, colour, and texture, some being brown and redish; others gray, black, and Flint-like: some soft, like a Slate or Whetstone, as a Flint, and as brittle. That which I more particularly observ'd, was a piece about the bigness of a mans hand, which seem'd to be of some large tree, that by rottenness had been broken, and it began to be petrify'd.

And indeed, all that I have yet seen, seem to have been before the petrification was begun; and not long after, viewing a huge great Oak, that seem'd with meer a flood, I was very much confirm'd in this opinion; the grain, colour, and shape of the Wood, was exactly the same; and with a Microscope, I found, that all those pores, which in sappy or firm and sound Wood are fill'd with the natural juices of those Vegetables, in this they were empty, and of *Vegetables charr'd*; but with this difference, that they were larger then I have seen any in *Char-coals*; nay, even made of great blocks of Timber, which are common.

The reason of which difference may probably be, that Vegetables, being an operation quickly perform'd, and is sappy, the more solid parts may more easily shrink, and tract the pores or *interstitia* between them, then in those where that natural juice seems onely to be wash'd away, or unnatural moisture; and so though the natural pores between the firm parts, yet those parts are kept as usual, and free from those moistures, and so by degrees settled in those pores.

And this I likewise found in the petrify'd Wood, somewhat bigger then those of *Charcoal*, each pore being as bigg again, but they did not bear that disproportion in the tenth Scheme, between the small specks or pores (which representeth the pores of Coal or Wood) and the black spots of the second Figure (which representeth the pores in the petrify'd Wood) for these last were drawn magnify'd the object above six times more in Diameter, than the scope by which those pores of Coal were observ'd.

Now, though they were a little bigger, yet did they resemble the figure and order of the pores of Coals and of rotten Wood, also were much of the same size.

The other Observations on this petrify'd substance, which by the appointment of the *Royal Society*, I made, and an account of, were these that follow, which had the

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